

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Project ID: 580-17321-1
Client Job ID: Rainier Commons

For:
Clean Harbors Environmental Services Inc
19320 Des Moines Memorial Dr
Bldg D, Suite 400
Seatac, Washington 98148

Attn: Shawn Estrada

Pamela R. Johnson

Authorized for release by:
1/19/2010 1:52 PM

Pam Johnson
Project Manager I
pamr.johnson@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?

? Ask
The
Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature

Qualifier Definition/Glossary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
X	Surrogate exceeds the control limits

Glossary

Glossary	Glossary Description
✱	Listed under the "D" column to designate that the result is reported on a dry weight basis.



Job Narrative
580-17321-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC Semi VOA - Method 8082

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 580-57011 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria; therefore the MS/MSD results were "F" flagged and the results were reported.

The following sample contained more than one Aroclor component: 580-17321-1. Results are estimated due to shared peaks. Obvious overlapping peaks were deleted to minimize high biased results.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Analytical Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Client Sample ID: RC 110110

Lab Sample ID: 580-17321-1

Date Collected: 01/11/10 10:37

Matrix: Solid

Date Received: 01/11/10 11:15

Percent Solids: 95.0

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.0099		mg/Kg	☆	01/14/10 10:29	01/14/10 15:45	1
PCB-1221	ND		0.0099		mg/Kg	☆	01/14/10 10:29	01/14/10 15:45	1
PCB-1232	ND		0.0099		mg/Kg	☆	01/14/10 10:29	01/14/10 15:45	1
PCB-1242	ND		0.0099		mg/Kg	☆	01/14/10 10:29	01/14/10 15:45	1
PCB-1248	ND		0.0099		mg/Kg	☆	01/14/10 10:29	01/14/10 15:45	1
PCB-1254	1.8		0.049		mg/Kg	☆	01/14/10 10:29	01/18/10 13:38	5
PCB-1260	0.87		0.049		mg/Kg	☆	01/14/10 10:29	01/18/10 13:38	5

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		45 - 155	01/14/10 10:29	01/14/10 15:45	1
DCB Decachlorobiphenyl	66		60 - 125	01/14/10 10:29	01/14/10 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			01/14/10 09:14	1
Percent Moisture	5.0		0.10		%			01/14/10 09:14	1

Quality Control Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-57011/1-A

Matrix: Solid

Analysis Batch: 56985

Client Sample ID: MB 580-57011/1-A

Prep Type: Total/NA

Prep Batch: 57011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1221	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1232	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1242	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1248	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1254	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1
PCB-1260	ND		0.010		mg/Kg		01/14/10 10:29	01/14/10 15:15	1

Surrogate	MB % Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		45 - 155	01/14/10 10:29	01/14/10 15:15	1
DCB Decachlorobiphenyl	78		60 - 125	01/14/10 10:29	01/14/10 15:15	1

Lab Sample ID: LCS 580-57011/2-A

Matrix: Solid

Analysis Batch: 56985

Client Sample ID: LCS 580-57011/2-A

Prep Type: Total/NA

Prep Batch: 57011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	% Rec.	Limits
PCB-1016	0.100	0.100		mg/Kg	100	40 - 140
PCB-1260	0.100	0.113		mg/Kg	113	60 - 130

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	89		45 - 155
DCB Decachlorobiphenyl	84		60 - 125

Lab Sample ID: 580-17321-1 MS

Matrix: Solid

Analysis Batch: 57136

Client Sample ID: RC 110110

Prep Type: Total/NA

Prep Batch: 57011

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	% Rec.	Limits
PCB-1016			0.102	0.169	F	mg/Kg	165	40 - 140
PCB-1260			0.102	0.438	4	mg/Kg	-419	60 - 130

Surrogate	MS % Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	0	X D	45 - 155
DCB Decachlorobiphenyl	0	X D	60 - 125

Lab Sample ID: 580-17321-1 MSD

Matrix: Solid

Analysis Batch: 57136

Client Sample ID: RC 110110

Prep Type: Total/NA

Prep Batch: 57011

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	% Rec.	Limits	RPD	Limit
PCB-1016			0.103	0.284	F	mg/Kg	275	40 - 140	51	20
PCB-1260			0.103	0.734	4 F	mg/Kg	-128	60 - 130	51	20

Surrogate	MSD % Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	0	X D	45 - 155
DCB Decachlorobiphenyl	0	X D	60 - 125

Lab Chronicle

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Client Sample ID: RC 110110

Lab Sample ID: 580-17321-1

Date Collected: 01/11/10 10:37

Matrix: Solid

Date Received: 01/11/10 11:15

Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B		1	57011	01/14/10 10:29	KKJ	TestAmerica Seattle
Total/NA	Prep	3550B		5	57011	01/14/10 10:29	KKJ	TestAmerica Seattle
Total/NA	Analysis	8082		1	56985	01/14/10 15:45	SLC	TestAmerica Seattle
Total/NA	Analysis	8082		5	57136	01/18/10 13:38	SLC	TestAmerica Seattle
Total/NA	Analysis	Moisture		1	56984	01/14/10 09:14	KKJ	TestAmerica Seattle

Certification Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Laboratory	Program	Authority	EPA Region	Certification ID	Expiration Date
TestAmerica Seattle	NELAC Secondary AB	California	9	1115CA	01/31/10
TestAmerica Seattle	State Program	Alaska	10	UST-022	03/04/10
TestAmerica Seattle	State Program	Washington	10	C1226	02/17/10
TestAmerica Seattle	USDA			P330-08-00099	05/22/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



Method Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL TAC
Moisture	Percent Moisture	EPA	TAL TAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAC = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17321-1

Lab Sample ID	Client Sample ID	Matrix	Sampled	Received
580-17321-1	RC 110110	Solid	01/11/10 10:37	01/11/10 11:15



☐ 1 Hill Avenue, Braintree, MA 02184

Tel. (781) 849-1800

☐ RTE. 2, Box 170, Waynoka, OK 73860

Tel. (580) 697-3500

☐ 12400 247th Avenue SE, Sawyer, ND 58781

Tel. (701) 624-5622

□ 2202 Genoa Red Bluff Road, Houston, TX 77034

Tel. (281) 478-7700

□ 5295 S. Garvey Road, Westmorland, CA 92281 Tel. (760) 344-9400

☐ Other

Client: CLAU MARBOTS

Project Name: Rainier Commons Work Order/P.O. #: 672680305 Date _____

Report To: Shawn Estrada

Address: _____ Phone #: 206 296 0637

[illegible]

OFFICE COPY

Login Sample Receipt Check List

Client: Clean Harbors Environmental Services Inc

Job Number: 580-17321-1

Login Number: 17321

Creator: Gamble, Cathy

List Number: 1

List Source: TestAmerica Tacoma

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	Sampled today @10:37
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	no sample time, used sample time from container
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	False	
Sample Preservation Verified	N/A	